



TCEA 2013 Legislative Program

Today's students are finding the one-size fits all education model to be woefully inadequate to provide them with a student-centered, customized learning model that addresses the diversity of their backgrounds, interests, and learning goals. Students desire to map their own learning journey by directing their path and choosing the mode of educational exploration that best fits their own personal style and interest.ⁱ Outside of the classroom, students are utilizing technologies that enable them to create personalized learning environments that directly fuel their individual learning passions in a modality that is highly customized to their learning needs.ⁱⁱ Unfortunately, many schools do not provide a learning environment that matches what these students have created outside the school. There is a growing disconnect between how students learn and collaborate outside of school with how they learn and collaborate within the school. They are finding that their school experiences are not relevant and do not meet their needs.

This has not gone unnoticed by Texas educators, business leaders, and legislators. Steps have been taken in recent legislative sessions to begin to digitize the learning environment by providing more flexibility with funding that had been set aside for textbooks and technology. The Texas Virtual School has also given more opportunities for Texas students to take some of their classes online. Many school districts are taking these opportunities to increase the access to mobile devices in their classrooms and provide students with opportunities to engage with rich-media content. However, they have indicated that there are still barriers to realize the goal of providing students with the education they need to compete in this global economy.

In order to meet the needs of students, TCEA surveyed over 1,900 of our members, reviewed the 2011 Speak Up Survey that had over 416,000 respondents, and reviewed relevant research to come up with the following recommendations.

- 1. Require 6 hours for professional development for teachers, librarians, and instructional (campus and district) administrators on how to leverage technology to create a more personalized learning experience while mastering the state's curriculum.**

Teachers and instructional administrators must receive on-going professional development on how to utilize digital tools to access and manipulate digital content in order to provide a more personalized learning environment for students. In addition, educators need more opportunities to experience online learning and the use of mobile technology that is either purchased by the school or provided by the student. Educators that have exposure to online learning and other technology tools are more likely to find ways to incorporate the use of these tools in their classroom.ⁱⁱⁱ

2. Increase opportunities for students to take an online course.

Between 2008-2010, there was a 173% increase in students taking an online course via the Texas Virtual School (TxVSN). This was largely due to the increased funding allocated by the state legislature. This funding was eliminated by the 82nd legislature, which resulted in fewer students taking courses via the TxVSN. Enrollment in the TxVSN dropped from 22,899 in the 2010-2011 school year to 5,685 in the 2011-2012 school year.^{iv} This is a 76% decrease. Many districts did not have enough students enrolled in any single virtual class to warrant the reduction of a FTE; therefore, there was no cost savings to the district to warrant participation in the TxVSN without additional state aid.

3. Increase the number of students taking a course in computational thinking

The 81st legislature eliminated the requirement for high school students to take a technology course for graduation. The belief was that Texas students were equipped with the necessary technology literacy skills to function in college and career. There is a growing concern, however, that although Texas students may know how to function online and operate consumer electronics, the vast majority of them have very little computational thinking skills. The Bureau of Labor and Statistics estimates that by 2018, computing occupations in the United States will grow by 21%, or about 800,000 new jobs, which is more than double the growth rate of all occupations in the United States.^v The National Science Foundation estimates that computer science will produce more jobs in the coming decade than all other science and engineering professions combined. However, only 31% of the job openings in Texas that require computer science degrees can be filled.^{vi} With less than 2%^{vii} of all Texas high school students taking a Computer Science course for each of the last four years, Texas will never be able to meet the job demand for computer scientists if more students are not exposed to some type of computer science course in high school.

4. Provide adequate and equitable bandwidth for Texas homes, K-12 schools, and publicly-accessible institutions.

High-speed broadband is now as an important a component of K-12 school infrastructure as electricity, air conditioning, and heating. Schools are increasingly allowing students to bring their mobile technology to school, which requires schools to increase the bandwidth to provide access for these devices. The State Educational Technology Directors Association (SETDA) recommends that by 2014-2015, school districts should have at least 100 Mbps per 1,000 students/staff coming into the network and at least 1 Gbps per 1,000 students/staff within the internal network.^{viii} According to the National Broadband Map, Texas schools only have an average of 10-25 Mbps coming into their network.^{ix} This means that some parts of the state have even less bandwidth, depending on which part of the state the school is located.

5. Ensure that districts have the funding necessary to purchase the technological equipment, services, instructional materials, and professional development to meet the goals and objectives in the state's Long-Range Plan for Technology

SB 6 required the State Board of Education to set aside 50 percent of the distribution from the Permanent School Fund to the Available School Fund to establish the Instructional Materials Allotment. This fund was created so districts could provide each student with materials that cover all elements of the essential knowledge and skills adopted by the State Board of Education. In addition, SB 6 eliminated the state's Technology Allotment that had been used by districts to purchase technological equipment, services, resources, and professional development to meet the goals and objectives of the state's Long-Range Plan for Technology. In its place, SB 6 allowed districts to use funds from the IMA to for these purposes.

Implementation of the Instructional Materials Allotment has resulted in a significant decrease in funding for technology. Since 1992, the Technology Allotment allocated approximately \$135 million annually to be spent on educational technology. However, by the end of the 2010-2011 school year, school districts had spent only \$25 million of the IMA on technology.^x This decrease, along with the other budget cuts that districts had to grapple with, has impacted the rate at which districts can move forward in realizing the goals of the state's technology plan. Without adequate funding, Texas schools will be unable to provide students and teachers with the digital resources that are absolutely necessary to transform the one-size-fits-all education model to one that ensures that a student's educational path, curriculum, and instruction are personalized to meet his/her unique strengths and weaknesses, interests, and ways of learning.

ⁱ Innovate to Educate: System [Re]Design for Personalized Learning, page 6

ⁱⁱ Speak Up 2011: Mapping a Personalized Learning Journey, Page 3

ⁱⁱⁱ Speak Up 2011: Personalizing the Classroom Experience, Page 5

^{iv} TxVSN website, ine

^v Computing in the Core, <http://www.computinginthecore.org/impacts/jobs-in-computing>

^{vi} National Center for Information Technology, <http://www.ncwit.org/edjobsmap>

^{vii} PEIMS data from TEA

^{viii} The Broadband Imperative, SETDA, page 1

^{ix} National Broadband Map, <http://www.broadbandmap.gov/summarize/state/texas>

^x TEA, IMA Expenditure Reports